

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): An elevator apparatus comprising:

a car raised and lowered within a hoistway;

a main sensor unit ~~for generating~~ configured to generate a main detection signal corresponding to a movement amount of the car; ~~and~~

a control device ~~for obtaining~~ configured to obtain car information including at least one of car position information and car speed information based on the main detection signal, and ~~for controlling control~~ operation of the car in accordance with the car information; ~~characterized in that: the elevator apparatus further comprises;~~

an auxiliary sensor unit ~~for generating~~ configured to generate an auxiliary detection signal upon detecting an arrival of the car at a preset reference position within the hoistway; and

the control device ~~makes corrections~~ is further configured to make a correction to the car information based on the auxiliary detection signal, determine a threshold speed for the car, and monitor the car speed information in the car information to determine whether the car has reached the threshold speed.

Claim 2 (Canceled).

Claim 3 (Currently Amended): An elevator apparatus ~~according to Claim 2, further~~ comprising:

a car raised and lowered within a hoistway;

a main sensor unit mounted to the car and configured to generate a main detection signal corresponding to a movement amount of the car;

a control device configured to obtain car information including at least one of car position information and car speed information based on the main detection signal, and control operation of the car in accordance with the car information;

an auxiliary sensor unit configured to generate an auxiliary detection signal upon detecting an arrival of the car at a preset reference position within the hoistway;

the control device is further configured to make a correction to the car information based on the auxiliary detection signal;

a car guide rail ~~for guiding~~ configured to guide raising and lowering of the car, wherein characterized in that the main sensor unit has a detection roller that is rolled along the car guide rail as the car is raised and lowered[.]; and

a signal generator ~~for generating~~ configured to generate the main detection signal in accordance with a rotation of the detection roller.

Claim 4 (Currently Amended): An elevator apparatus according to Claim 1, ~~characterized in that~~ wherein the auxiliary sensor unit is mounted to the car.

Claim 5 (Currently Amended): An elevator apparatus according to Claim 4, further comprising:

a car guide rail for guiding raising and lowering of the car, the car guide rail having a plurality of rail members that are jointed together in a raising and lowering direction of the car, ~~characterized in that~~ ; and

the auxiliary sensor unit detects a joint of the rail members as the reference position.

Claim 6 (Currently Amended): An elevator apparatus according to Claim 1,
~~characterized in that~~ wherein the auxiliary sensor unit is disposed at the preset reference
position within the hoistway.

Claim 7 (Currently Amended): An elevator apparatus ~~according to Claim 1,~~
~~characterized in that~~ comprising:

a car raised and lowered within a hoistway;

a main sensor unit mounted to the car and configured to generate a main detection
signal corresponding to a movement amount of the car;

a control device configured to obtain car information including at least one of car
position information and car speed information based on the main detection signal, and
control operation of the car in accordance with the car information;

an auxiliary sensor unit configured to generate an auxiliary detection signal upon
detecting an arrival of the car at a preset reference position within the hoistway; and

the control device is further configured to make a correction to the car information
based on the auxiliary detection signal, and when an amount of the correction ~~to be made to~~
~~the car information due to the auxiliary detection signal~~ is equal to or larger than a set value
that is set in advance, the control device judges that there is a failure in at least one of the
main sensor unit and the auxiliary sensor unit to generate a failure detection signal.

Claim 8 (Currently Amended): An elevator apparatus according to Claim 1,
~~characterized in that~~ wherein:

the main sensor unit includes a plurality of main sensors; and

the control device compares main detection signals from the respective main sensors,
and when a difference between the main detection signals is equal to or larger than a set value

that is set in advance, the control device judges that there is a failure in the main sensors to generate a failure detection signal.

Claim 9 (Currently Amended): An elevator apparatus comprising:

- a car raised and lowered within a hoistway;
- a main sensor unit ~~for generating~~ configured to generate a main detection signal corresponding to a movement amount of the car; ~~and~~
- a control device ~~for obtaining~~ configured to obtain car information including at least one of car position information and car speed information based on the main detection signal, and ~~for controlling~~ control operation of the car in accordance with the car information;

~~characterized in that: the elevator apparatus further comprises~~

- an auxiliary sensor unit ~~for generating~~ configured to generate an auxiliary detection signal upon detecting an arrival of the car at a preset reference position within the hoistway;
- and
- the control device monitors an error in the car information based on the auxiliary detection, and when an amount of the error is greater than a predetermined value, the control device judges that there is a failure in one of the main sensor unit and the auxiliary sensor unit to generate a failure detection signal.

Claim 10 (New): An elevator apparatus according to claim 1, wherein the control device makes corrections to the car speed information in the car information based on the auxiliary detection signal.

Claim 11 (New): An elevator apparatus according to claim 1, wherein the main sensor includes two sensors disposed across a guiderail in the hoistway and each configured to generate an independent detection signal.

Claim 12 (New): An elevator apparatus according to claim 3, wherein the control device is further configured to determine a threshold speed for the car and monitor the car speed information in the car information to determine whether the car has reached the threshold speed.

Claim 13 (New): An elevator apparatus according to Claim 3, wherein the auxiliary sensor unit is mounted to the car.

Claim 14 (New): An elevator apparatus according to Claim 13, further comprising:
a car guide rail for guiding raising and lowering of the car, the car guide rail having a plurality of rail members that are jointed together in a raising and lowering direction of the car; and

the auxiliary sensor unit detects a joint of the rail members as the reference position.

Claim 15 (New): An elevator apparatus according to Claim 3, wherein the auxiliary sensor unit is disposed at the preset reference position within the hoistway.

Claim 16 (New): An elevator apparatus according to Claim 3, wherein:
the main sensor unit includes a plurality of main sensors; and
the control device compares main detection signals from the respective main sensors, and when a difference between the main detection signals is equal to or larger than a set value

that is set in advance, the control device judges that there is a failure in the main sensors to generate a failure detection signal.

Claim 17 (New): An elevator apparatus according to claim 3, wherein the control device makes corrections to the car speed information in the car information based on the auxiliary detection signal.

Claim 18 (New): An elevator apparatus according to claim 3, wherein the main sensor includes two sensors disposed across a guiderail in the hoistway and each configured to generate an independent detection signal.

Claim 19 (New): An elevator apparatus according to claim 7, wherein the control device makes corrections to the car speed information in the car information based on the auxiliary detection signal.

Claim 20 (New): An elevator apparatus according to claim 7, wherein the main sensor includes two sensors disposed across a guiderail in the hoistway and each configured to generate an independent detection signal.

Claim 21 (New): An elevator apparatus according to claim 7, further comprising:
a car guide rail for guiding raising and lowering of the car, the car guide rail having a plurality of rail members that are jointed together in a raising and lowering direction of the car; and
the auxiliary sensor unit is mounted to the car and configured to detect a joint of the rail members as the reference position.